(54)【発明の名称】　通信装置システム

(57)【要約】

【課題】　無線接続される携帯端末によって、外出時の通信が可能であり、一方、無線接続される携帯端末を自宅で使用し、有線接続されている通信端末が近くに存在している場合には、通信費を安く抑えることができる通信装置システムを提供することを目的とするものである。

【解決手段】　無線接続されている携帯端末からの送信が選択されたときに、近くに有線接続されている通信端末が存在するか否かに応じて、無線接続されている携帯端末から直接、通信を実行するか、または、上記携帯端末から無線を介して通信せずに、有線接続されている通信端末を使用し、有線を介して通信を実行するかを決定する通信装置システムである。
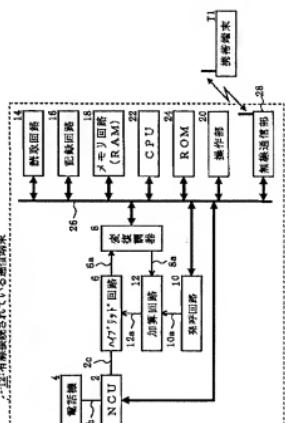
【特許請求の範囲】

【請求項１】　無線接続される携帯端末と、有線接続されている通信端末とを有する通信装置システムにおいて、

無線接続されている携帯端末からの送信が選択されたときに、近くに有線接続されている通信端末が存在するか否かに応じて、無線接続される携帯端末から直接、通信を実行するか、または、上記携帯端末から無線を介して通信せずに、有線接続されている通信端末を使用し、有線を介して通信を実行するかを決定することを特徴とする通信装置システム。

【請求項２】　請求項１において、

無線接続されている携帯端末からの送信が選択されたときに、有線接続されている通信端末が、近くに存在していないと、無線接続される携帯端末から直接、通信を実行し、

一方、有線接続されている通信端末が、近くに存在していれば、上記携帯端末から無線を介した通信をせずに、有線に接続されている通信端末を使用し、有線を介して通信を実行することを特徴とする通信装置システム。

【請求項３】　請求項１または請求項２において、

有線接続されている通信端末が近くに存在していても、携帯端末からの無線を介した通信を選択できることを特徴とする通信装置システム。

【請求項４】　請求項１において、

有線接続されている通信端末が、近くに存在していれば、上記携帯端末から無線を介した通信をせずに、有線に接続されている通信端末を使用し、有線を介して通信を実行するモードを第１のモードとし、

無線接続されている携帯端末から特定の通信モードが選択されたときには、上記第１のモードを無効とし、無線接続されている携帯端末から直接、通信を実行することを特徴とする通信装置システム。

【請求項５】　請求項４において、

上記特定の通信モードは、Ｅメール送信であることを特徴とする通信装置システム。

【請求項６】　請求項４または請求項５において、

上記特定の通信モード以外の通信モードは、ウェブ通信またはファクシミリ通信であることを特徴とする通信装置システム。

【発明の詳細な説明】

【０００１】

【発明の属する技術分野】本発明は、通信装置システム、特に、無線接続される携帯端末と、有線接続されている通信端末とを有する通信装置システムに関するものである。

【０００２】

【従来の技術】無線接続される携帯端末と、有線接続されたときに、有線接続されている通信端末との間で無線を介した通信を実行し、この有線接続されている通信端末から、有線を介して通信を実行する通信装置システムが提案されている。

【０００３】

【発明が解決しようとする課題】しかし、上記従来例の通信装置システムにおいては、無線接続される携帯端末からの通信が、必ず、有線接続されている通信端末を介して通信を実行するので、無線接続される携帯端末を外出時に持ち出し、有効利用することができないという問題がある。

【０００４】本発明は、無線接続される携帯端末によって、外出時の通信が可能であり、一方、無線接続される携帯端末を自宅で使用し、有線接続されている通信端末が近くに存在している場合には、通信費を安く抑えることができる通信装置システムを提供することを目的とするものである。

【０００５】

【課題を解決するための手段】本発明は、無線接続されている携帯端末からの送信が選択されたときに、近くに有線接続されている通信端末が存在するか否かに応じて、無線接続されている携帯端末から直接、通信を実行するか、または、上記携帯端末から無線を介して通信せずに、有線接続されている通信端末を使用し、有線を介して通信を実行するかを決定する通信装置システムである。

【０００６】

【発明の実施の形態および実施例】［第１の実施例］図１は、本発明の第１の実施例である通信装置システムＣＳ１を示すブロック図である。

【０００７】通信装置システムＣＳ１は、携帯端末Ｔ１と、有線接続されている通信端末Ｔ２とによって構成されている。

【０００８】有線接続されている通信端末Ｔ２は、ファクシミリ装置であり、ＮＣＵ２～無線通信部２８によって構成され、無線接続される携帯端末は、携帯端末Ｔ１である。

【０００９】ＮＣＵ（網制御装置）２は、電話網をデータ通信等に使用するために、その回線の端末に接続し、電話交換機の接続制御を行ったり、データ通信網への切り換えを行ったり、ループの開閉を行うものである。また、ＮＣＵ２は、バス２６からの制御によって、電話回線２ａを電話機側に接続（ＣＭＬオフ）したり、電話回線２ａをファクシミリ装置側に接続（ＣＭＬオン）するものである。なお、通常状態では、電話回線２ａは、電話機４側に接続されている。

【００１０】ハイブリッド回路６は、送信系の信号と受信系の信号を分離し、加算回路１２からの送信信号を

器８に送るものである。

【００１１】変復調器８は、ＩＴＵ−Ｔ勧告Ｖ．８、Ｖ．２１、Ｖ．２７ter、Ｖ．２９、Ｖ．１７、Ｖ．３４に基づいた変調と復調とを行う変復調回路であり、バス２６の制御によって、各伝送モードが指定される。変復調器８は、バス２６からの送信信号を入力し、変調データを信号線８ａに出力し、また、信号線６ａに出力されている受信信号を入力し、復調データをバス２６に出力する。

【００１２】発呼回路１０は、バス２６からの信号によって、電話番号情報を入力し、信号線１０ａにＤＴＭＦの選択信号を出力する。

【００１３】加算回路１２は、信号線８ａの情報と信号線１０ａの情報とを入力し、加算した結果を信号線１２ａに出力する。

【００１４】カラー情報を読み取り可能な読取回路１４は、読み取りデータをバス２６に出力する。

【００１５】カラー情報を記録可能な記録回路１６は、バス２６に出力されている情報を順次１ライン毎に記録する。

【００１６】メモリ回路１８は、ワーク用のメモリ（ＲＡＭ）、また、読み取りデータの生情報、または、符号化した情報を格納したり、また、受信情報、または、復号化した情報等を、バス２６を介して格納するために使用する。

【００１７】操作部２０は、ワンタッチダイヤル、短縮ダイヤル、テンキー、＊キー、＃キー、スタートキー、ストップキー、セットキー、メモリ１８への登録キー、受信時携帯端末への送信選択キー、その他のファンクションキーを有し、押下されたキー情報は、バス２６に出力される。操作部２０には、表示部があり、バス２６に出力されている情報を、表示する。

【００１８】ＣＰＵ（中央処理装置）２２は、通信装置システムの制御を実行するが、その制御プログラムは、ＲＯＭ２４に格納される。

【００１９】無線通信部２８は、無線を介して、携帯端末Ｔ１と通信する。

【００２０】携帯端末Ｔ１は、無線を介して、有線接続されている通信端末Ｔ２、特に、無線通信部２８との通信を実行する。

【００２１】また、通信装置システムＣＳ１は、無線接続される携帯端末Ｔ１と、有線接続されている通信端末Ｔ２（ＮＣＵ２〜無線通信部２８）とを有する通信装置システムであり、無線接続される携帯端末Ｔ１からの送信が選択されたときに、近くに有線接続されている通信端末Ｔ２が存在するか否かによって、無線接続される携帯端末から直接、通信を実行するか、または、携帯端末Ｔ１からの無線を介した通信をせずに、有線に接続され

【００２２】具体的には、無線接続される携帯端末Ｔ１からの送信が選択されたときに、有線接続されている通信端末Ｔ２が近くに存在していないと、無線接続される携帯端末Ｔ１から直接、通信を実行し、一方、有線接続されている通信端末Ｔ２が近くに存在していると、携帯端末Ｔ１からの無線を介した通信をせずに、有線接続されている通信端末Ｔ２を使用して、有線を介して通信を実行する。

【００２３】さらに、有線接続されている通信端末Ｔ２が近くに存在していても、携帯端末Ｔ１からの無線を介した通信を選択することができる。

【００２４】ＲＯＭ２４は、図１に示す有線接続されている通信端末Ｔ２（ＮＣＵ２〜無線通信部２８）の制御プログラムが格納されている。

【００２５】携帯端末Ｔ１には、携帯端末Ｔ１が無線接続される制御プログラムが格納されている。

【００２６】図２は、第１の実施例において、携帯端末Ｔ１が無線接続される制御動作を示すフローチャートである。

【００２７】Ｓ２では、通信が選択された否かを調べ、通信が選択されれば、Ｓ６に進み、通信が選択されなければ、Ｓ４に進み、その他の処理をする。

【００２８】Ｓ６では、携帯端末Ｔ１から直接、無線通信が選択されたか否かを調べ、携帯端末Ｔ１から直接、無線通信が選択されていれば、Ｓ１２に進み、直接、無線を介した通信を実行し、携帯端末Ｔ１から直接、無線通信が選択されていなければ、Ｓ８に進む。

【００２９】Ｓ８では、この携帯端末Ｔ１の近くに、有線接続の端末が存在するか否かを調べ、携帯端末Ｔ１の近くに有線接続されている端末が存在していれば、Ｓ１０に進み、有線接続されている端末と通信し、携帯端末Ｔ１の近くに有線接続の端末が存在していなければ、Ｓ１２に進む。

【００３０】図４、図５は、第１の実施例において、有線接続されている通信端末Ｔ２の制御動作を示すフローチャートである。

【００３１】Ｓ３２では、バス２６を介して、メモリ１８をイニシャライズし、Ｓ３４では、バス２６を介して、操作部の表示部をクリアし、Ｓ３６では、バス２６を介して、ＮＣＵ２のＣＭＬをオフする。

【００３２】Ｓ３８では、携帯端末Ｔ１からの送信が選択されたか否かを調べ、携帯端末Ｔ１からの送信が選択されていると、Ｓ４０に進み、携帯端末Ｔ１からの送信が選択されていなければ、Ｓ４４に進む。

【００３３】Ｓ４０では、バス２６を介して、ＮＣＵ２のＣＭＬをオンし、Ｓ４２では、バス２６を介して、発呼回路を使用し、指定された宛先へ発呼し、Ｓ４４では、携帯端末Ｔ１から、指定された通信を実行する。

か否かを調べ、自機の操作部から送信が選択されていれば、Ｓ４８に進み、自機の操作部から送信が選択されていなければ、Ｓ５８に進む。

【００３５】Ｓ４８では、バス２６を介して、ＮＣＵ２のＣＭＬをオンし、Ｓ５０では、バス２６を介して、発呼回路を使用し、指定された宛先へ発呼し、Ｓ５２では、前手順を実行し、Ｓ５４では、画像番号を読み取り、ファクシミリ送信し、Ｓ５６では、後手順を実行する。

【００３６】Ｓ５８では、着信があるか否かを調べ、着信があれば、Ｓ６２に進み、着信がなければ、Ｓ６０に進み、その他の処理をする。

【００３７】Ｓ６２では、バス２６を介して、ＮＣＵ２のＣＭＬをオンし、Ｓ６４では、指定された通信を実行し、Ｓ６６では、バス２６を介して、ＮＣＵ２のＣＭＬをオフする。

【００３８】Ｓ６８では、携帯端末Ｔ１への送信が選択されているか否かを調べ、携帯端末Ｔ１への送信が選択されていれば、Ｓ７０に進み、受信した情報を携帯端末Ｔ１へ送信し、携帯端末Ｔ１への送信が選択されていなければ、Ｓ７２に進み、受信した情報のプリントを実行する。

【００３９】［第２の実施例］第２の実施例は、有線接続されている通信端末Ｔ２が、近くに存在していれば、携帯端末Ｔ１から無線を介した通信をせずに、有線に接続されている通信端末を使用し、有線を介して通信を実行するモードを第１のモードとした場合、無線接続されている携帯端末から特定の通信モードが選択されたときには、上記第１のモードを無効とし、無線接続されている携帯端末から直接、通信を実行する実施例である。

【００４０】なお、上記特定の通信モードは、たとえば、Ｅメール送信であり、特定の通信モード以外の通信モードは、たとえば、ウェブ通信、ファクシミリ通信である。

【００４１】第２の実施例における制御は、第１の実施例における制御において、無線接続される携帯端末の制御のみが異なる。

【００４２】図３は、本発明の第２の実施例において、携帯端末Ｔ１が無線接続される制御動作を示すフローチャートである。

【００４３】なお、図３には、無線接続される携帯端末Ｔ１の制御動作のうちで、図２に示す動作と異なる動作のみが示されている。

【００４４】Ｓ２０は、Ｓ８におけるＹＥＳが示されている。

【００４５】Ｓ２２では、Ｅメール送信が選択されたか否かを調べ、Ｅメール送信が選択されていると、Ｓ２６（Ｓ１２）に進み、Ｅメール送信が選択されていない、すなわち、ウェブ通信、または、ファクシミリ通信

される携帯端末を外出先で使用し、無線接続される携帯端末からの送信が選択されたときに、有線接続されている通信端末Ｔ２が近くに存在していなければ、無線接続される携帯端末から直接、通信するので、外出時に通信が可能であり、一方、無線接続される携帯端末を自宅で使用し、有線接続されている通信端末Ｔ２が近くに存在していると、携帯端末Ｔ１から無線を介した通信を実行せずに、有線接続されている通信端末Ｔ２を使用して通信するので、無線を介して通信する場合よりも、通信費を安く抑えることができる。

【００４７】また、上記第２の実施例によれば、無線接続されている携帯端末を自宅で使用し、近くに有線接続されている通信端末Ｔ２が存在している時でも、たとえば、Ｅメール送信のリターンを携帯端末で直接もらいたい場合等、携帯端末からの無線を介して通信することができる。

【００４８】さらに、上記第２の実施例によれば、無線接続されている携帯端末を自宅で使用し、近くに有線接続されている通信端末Ｔ２が存在している時でも、無線接続される携帯端末からＥメール送信をし、Ｅメール送信のリターンを携帯端末で直接もらいたい場合、携帯端末からの無線を介して通信することができ、一方、無線接続されている携帯端末からウェブ通信、または、ファクシミリ通信を実行し、これらの通信のリターンを受信することがなければ、携帯端末で直接、受信する必要が無いので、携帯端末からの無線を介した通信をせずに、有線に接続された通信端末を使用し、無線を介した通信を実行するよりも通信費を安く抑えることができる。

【００４９】なお、上記各実施例における通信端末Ｔ２として、ファクシミリ装置以外の通信端末を使用するようにしてもよい。

【００５０】
【発明の効果】請求項１、２記載の発明によれば、外出時に通信が可能であり、一方、無線接続される携帯端末を自宅で使用し、有線接続される通信端末が近くに存在していると、無線を介して通信するよりも、通信費を安く抑えることができるという効果を奏する。

【００５１】請求項３記載の発明によれば、無線接続されている携帯端末を自宅で使用し、近くに有線接続されている通信端末が存在している時でも、携帯端末からの無線を介した通信を実行することができるという効果を奏する。

【００５２】請求項４、５、６記載の発明によれば、無線接続されている携帯端末を自宅で使用し、近くに有線接続されている通信端末が存在しているときでも、無線接続される携帯端末からＥメールを送信し、Ｅメール送信のリターンを携帯端末で直接もらいたい場合、携帯端末からの無線を介して通信することが

することがなければ、無線を介して通信する場合よりも通信費を安く抑えることができるという効果を奏する。

【図面の簡単な説明】

【図１】本発明の第１の実施例である通信装置システムＣＳ１のブロック図である。

【図２】第１の実施例において、携帯端末Ｔ１が無線接続される制御動作を示すフローチャートである。

【図３】本発明の第２の実施例において、携帯端末Ｔ１が無線接続される制御動作を示すフローチャートである。

【図４】第１の実施例において、有線接続されている通信端末Ｔ２の制御動作を示すフローチャートである。

【図５】第１の実施例において、有線接続されている通信末Ｔ２の制御動作を示すフローチャートである。

【符号の説明】

ＣＳ１…通信装置システム、
Ｔ１…携帯端末、
Ｔ２…有線接続されている通信端末、
１８…メモリ回路、
２０…操作部、
２２…ＣＰＵ、
２４…ＲＯＭ、
２８…無線通信部。

【図１】

【図３】

【図２】

【図５】

【図４】

有線に接続されている端末T2の制御

```
                      S30
                  ┌─────────┐
                  │  始め   │
                  └────┬────┘
                      S32
         ┌──────────────────────────┐
         │ メモリ18をイニシャライズする │
         └──────────┬───────────────┘
                      S34
         ┌──────────────────────────┐
   ②────│  操作部の表示部をクリアする  │
         └──────────┬───────────────┘
                      S36
         ┌──────────────────────────┐
         │      ＣＭＬ  オフ        │
         └──────────┬───────────────┘

                      S38
              ╱───────────╲       No
            ╱    携帯       ╲────────────────┐
           ╱  端末T1からの送信が ╲              │
           ╲    選択か      ╱               S46
            ╲─────────────╱         ╱──────────╲    No
              │Yes                ╱   自機の     ╲──────┐
             S40                 ╱ 操作部からの送信が ╲    ③
    ┌──────────────────┐         ╲    選択か     ╱
    │    ＣＭＬ  オン    │          ╲───────────╱
    └────────┬─────────┘              │Yes
             S42                      S48
    ┌──────────────────┐    ┌──────────────────┐
    │  指定された宛先へ発呼する │    │    ＣＭＬ  オン    │
    └────────┬─────────┘    └────────┬─────────┘
             S44                      S50
    ┌──────────────────┐    ┌──────────────────┐
    │ 携帯端末T1から指定された通信 │    │  指定された宛先へ発呼する │
    │      の実行       │    └────────┬─────────┘
    └────────┬─────────┘             S52
             ②               ┌──────────────────┐
                             │      前手順       │
                             └────────┬─────────┘
                                      S54
                             ┌──────────────────┐
                             │ 画信号の読み取り／ファクシ │
                             │    ミリ送信       │
                             └────────┬─────────┘
                                      S56
                             ┌──────────────────┐
                             │      後手順       │
                             └────────┬─────────┘
                                      ①
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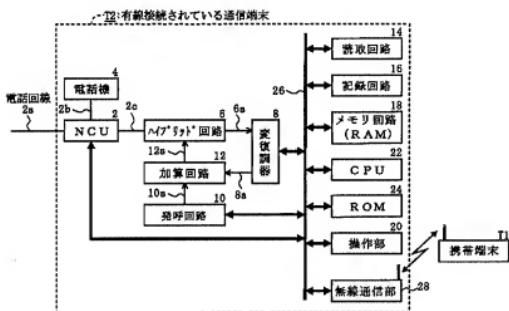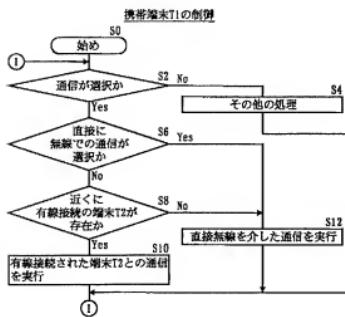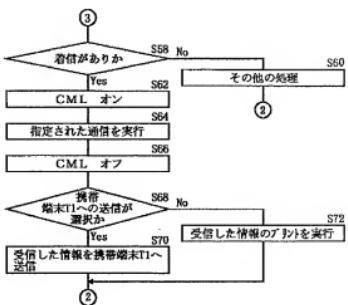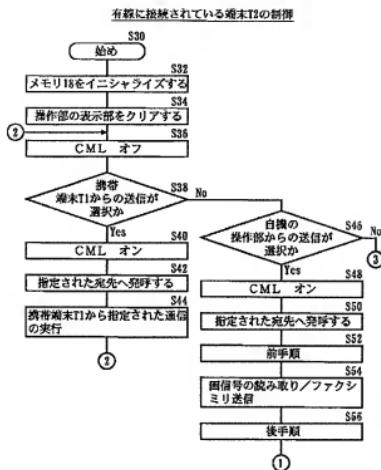
PATENT ABSTRACTS OF JAPAN

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                                     H04N 1/32

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(21)Application number : 2001-130934   (71)Applicant : CANON INC

(22)Date of filing :   27.04.2001   (72)Inventor : YOSHIDA TAKEHIRO

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(54) COMMUNICATION DEVICE SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a
communication device system by which a user makes
communication at a visit place with a mobile terminal for
wireless connection and can make the communication
cost lower than using the wireless connection mobile
terminal at its own house and a wired connection
terminal is near at hand.

SOLUTION: The communication device system decides
direct execution of communication by using a wireless
connected mobile terminal or use of a wired connection
communication terminal to execute wired communication
without wireless communication from the mobile terminal
depending on whether or not the wired connection
communication terminal exists near the user when
transmission from the wireless connected mobile terminal is selected.
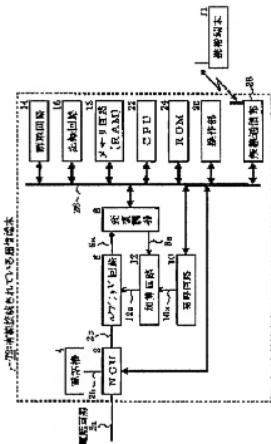
MACHINE TRANSLATION

* NOTICES *

CLAIMS

[Claim(s)]
[Claim 1]A personal digital assistant by which wireless connection is carried out.
A communication terminal by which wired connection is carried out.
When transmission from a personal digital assistant by which is the communication device
system provided with the above, and wireless connection is carried out is chosen, . [whether
communication is directly performed from a personal digital assistant by which wireless
connection is carried out to the neighborhood according to whether a communication terminal
by which wired connection is carried out exists, and] Or a communication terminal by which
wired connection is carried out is used without communicating via radio from the above-
mentioned personal digital assistant, and it determines whether to perform communication via
a cable.

[Claim 2]When transmission from a personal digital assistant by which wireless connection is
carried out is chosen in claim 1, If a communication terminal by which wired connection is
carried out does not exist in the neighborhood and a communication terminal by which
performs communication directly and wired connection is carried out on the other hand from a
personal digital assistant by which wireless connection is carried out exists in the
neighborhood, A communication device system using a communication terminal connected to
a cable, without carrying out communication which passed radio from the above-mentioned
personal digital assistant, and performing communication via a cable.
[Claim 3]A communication device system being able to choose communication through radio
from a personal digital assistant even if a communication terminal by which wired connection is
carried out exists in the neighborhood in claim 1 or claim 2.
[Claim 4]In claim 1, if a communication terminal by which wired connection is carried out exists
in the neighborhood, A communication terminal connected to a cable is used without carrying

out communication which passed radio from the above-mentioned personal digital assistant, A communication device system performing communication directly from a personal digital assistant by which makes the 1st mode the mode in which communication is performed via a cable, repeals the 1st mode of the above when specific communicate mode is chosen from a personal digital assistant by which wireless connection is carried out, and wireless connection is carried out.

[Claim 5]A communication device system characterized by the above-mentioned specific communicate mode being E-mail transmission in claim 4.

[Claim 6]A communication device system characterized by communicate modes other than the above-mentioned specific communicate mode being web communication or facsimile communication in claim 4 or claim 5.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention]This invention relates to the communication device system which has a
communication device system, a personal digital assistant by which wireless connection is
carried out especially, and the communication terminal by which wired connection is carried
out.
[0002]
[Description of the Prior Art]When the communication from a personal digital assistant by
which wireless connection is carried out is chosen as a conventional communication device
system which has a personal digital assistant by which wireless connection is carried out, and
the communication terminal by which wired connection is carried out, Communication which
passed radio between the communication terminals by which wired connection is carried out is
performed, and the communication device system which performs communication via a cable
is proposed from this communication terminal by which wired connection is carried out.
[0003]
[Problem(s) to be Solved by the Invention]However, in the communication device system of the
above-mentioned conventional example, since the communication from a personal digital
assistant by which wireless connection is carried out certainly performs communication via the
communication terminal by which wired connection is carried out, there is a problem that the
personal digital assistant by which wireless connection is carried out cannot be carried out at
the time of going out, and cannot be used effectively.
[0004]The communication at the time of going out is possible for this invention by the personal
digital assistant by which wireless connection is carried out, It aims at providing the
communication device system which can hold down communication charges at a low price,
when the personal digital assistant by which wireless connection is carried out is used on the

other hand at a house and the communication terminal by which wired connection is carried out exists in the neighborhood.

[0005]

[Means for Solving the Problem]When transmission from a personal digital assistant by which wireless connection is carried out is chosen, this invention, . [whether communication is directly performed from a personal digital assistant by which wireless connection is carried out to the neighborhood according to whether a communication terminal by which wired connection is carried out exists, and] Or it is a communication device system which determines whether to perform communication via a cable by using a communication terminal by which wired connection is carried out, without communicating via radio from the above-mentioned personal digital assistant.

[0006]

[An embodiment of the invention and an example] The [1st example] Drawing 1 is a block diagram showing communication device system CS1 which is the 1st example of this invention.

[0007]Communication device system CS1 is constituted by the personal digital assistant T1 and the communication terminal T2 by which wired connection is carried out.

[0008]The communication terminal T2 by which wired connection is carried out is a facsimile machine, and a personal digital assistant by which wireless connection is constituted and done in NCU2 - the Radio Communications Department 28 is the personal digital assistant T1.

[0009]In order to use a telephone network for data communications etc., it connects with a terminal of the circuit, and NCU(network control unit) 2 performs connect control of telephone exchange network, it performs a change to a data communication line, or holds a loop. By control from the bus 26, NCU2 connects the telephone line 2a to the telephone side (CML OFF), or it connects the telephone line 2a to the facsimile machine side (CML one). The telephone line 2a is connected to the telephone 4 side in a normal state.

[0010]The hybrid circuit 6 separates the signal of a transmission system, and the signal of a receiving system, sends out the sending signal from the adder circuit 12 to the telephone line 2a by NCU2 course, receives the signal from the other party by NCU2 course, and sends it to the modulator and demodulator 8 via signal wire 6a.

[0011]The modulator and demodulator 8 are modulator and demodulator which perform the abnormal conditions based on ITU-T recommendation V.8, V.21, V.27ter, V.29, V.17, and V.34, and a recovery, and each transmission mode is specified by control of the bus 26. The modulator and demodulator 8 input the sending signal from the bus 26, input the input signal which outputs modulation data to the signal wire 8a, and is outputted to the signal wire 6a, and output demodulated data to the bus 26.

[0012]With the signal from the bus 26, the call origination circuit 10 inputs telephone number

information, and outputs the selection signal of DTMF to the signal wire 10a.

[0013]The adder circuit 12 outputs the result of having inputted and added the information on the signal wire 8a, and the information on the signal wire 10a to the signal wire 12a.

[0014]The read circuit 14 which can read color information outputs read data to the bus 26.

[0015]The record circuit 16 which can record color information records the information currently outputted to the bus 26 for every line one by one.

[0016]Since the memory (RAM) for works and the raw information of read data, or the coded information is stored and receipt information or the decrypted information is stored via the bus 26, the memory circuit 18 is used.

[0017]The final controlling element 20 has a transmitting selection key to a personal digital assistant, and other function keys at the time of an one-touch dial, abbreviated dialing, a ten key, the * key, the # key, a start key, a stop key, a set key, the register key to the memory 18, and reception, and the pushed key information is outputted to the bus 26. There is an indicator in the final controlling element 20, and the information currently outputted to the bus 26 is inputted and displayed.

[0018]Although CPU(central processing unit) 22 performs control of a communication device system, the control program is stored in ROM24.

[0019]The Radio Communications Department 28 communicates with the personal digital assistant T1 via radio.

[0020]The personal digital assistant T1 performs the communication terminal T2 by which wired connection is carried out, especially communication with the Radio Communications Department 28 via radio.

[0021]The personal digital assistant T1 in which wireless connection of communication device system CS1 is carried out, When the transmission from the personal digital assistant T1 by which is a communication device system which has the communication terminal T2 (NCU2 - Radio Communications Department 28) by which wired connection is carried out, and wireless connection is carried out is chosen, It determines whether to perform communication via a cable by using the communication terminal connected to the cable, without carrying out communication through the radio from [from the personal digital assistant by which wireless connection is carried out] whether communication is performed directly and the personal digital assistant T1 by whether the communication terminal T2 by which wired connection is carried out to the neighborhood exists.

[0022]When the transmission from the personal digital assistant T1 by which wireless connection is carried out is specifically chosen, If the communication terminal T2 by which performs communication directly and wired connection is carried out on the other hand from the personal digital assistant T1 by which wireless connection is carried out if the communication terminal T2 by which wired connection is carried out does not exist in the

neighborhood exists in the neighborhood, The communication terminal T2 connected to the cable is used without carrying out communication through the radio from the personal digital assistant T1, and communication is performed via a cable.

[0023]Even if the communication terminal T2 by which wired connection is carried out exists in the neighborhood, communication through the radio from the personal digital assistant T1 can be chosen.

[0024]The control program of the communication terminal T2 (NCU2 - Radio Communications Department 28) which is shown in drawing 1 and by which wired connection is carried out is stored in ROM24.

[0025]The control program with which wireless connection of the personal digital assistant T1 is carried out is stored in the personal digital assistant T1.

[0026]Drawing 2 is a flow chart with which the personal digital assistant T1 shows the control action by which wireless connection is carried out in the 1st example.

[0027]In S2, if it investigates whether communication was chosen or not and communication is chosen, it will progress to S6 and communication will not be chosen, it progresses to S4 and others are processed.

[0028]In S6, if it investigates whether radio was directly chosen from the personal digital assistant T1 and radio is directly chosen from the personal digital assistant T1, it progresses to S12, and if communication through radio is performed and radio is not directly chosen from the personal digital assistant T1, it will progress to S8.

[0029]If it investigates whether the terminal of wired connection exists near this personal digital assistant T1 in S8 and the terminal by which wired connection is carried out exists near the personal digital assistant T1, If it communicates with the terminal by which wired connection is carried out by progressing to S10 and the terminal of wired connection does not exist near the personal digital assistant T1, it progresses to S12.

[0030]Drawing 4 and drawing 5 are flow charts which show the control action of the communication terminal T2 by which wired connection is carried out in the 1st example.

[0031]The memory 18 is initialized via the bus 26, by S34, the indicator of a final controlling element is cleared via the bus 26, and CML of NCU2 is turned off via the bus 26 by S36 S32.

[0032]In S38, if it investigates whether the transmission from the personal digital assistant T1 was chosen, and the transmission from the personal digital assistant T1 is chosen, it progresses to S40 and the transmission from the personal digital assistant T1 is not chosen, it progresses to S46.

[0033]And by S42, via the bus 26, a call origination circuit is used, call origination is carried out to the specified address, and specified communication is performed from the personal digital assistant T1 by S44 S40. [via the bus 26] [CML of NCU2]

[0034]In S46, if the information on the final controlling element 20 is inputted, it investigates

whether transmission was chosen from the final controlling element of a self-opportunity via the bus 26, and transmission is chosen from the final controlling element of a self-opportunity, it progresses to S48 and transmission is not chosen from the final controlling element of a self-opportunity, it progresses to S58.

[0035]A pre procedure is performed, by S54, a picture signal is read, facsimile transmission is carried out [, in S48, via the bus 26 a call origination circuit is used call origination is carried out to the specified address S50,] S52, and a defensive hand's order is performed in S56. [via the bus 26] [CML of NCU2]

[0036]In S58, if it investigates whether there is any mail arrival and there is mail arrival, it will progress to S62, and if there is no mail arrival, it will progress to S60 and others will be processed.

[0037]By S62, and specified communication is performed and CML of NCU2 is turned off via the bus 26 by S66 S64. [via the bus 26] [CML of NCU2]

[0038]In S68, if it investigates whether transmission to the personal digital assistant T1 is chosen, and transmission to the personal digital assistant T1 is chosen, the information which he followed to S70 and was received is transmitted to the personal digital assistant T1 and transmission to the personal digital assistant T1 is not chosen, the print of the information which he followed to S72 and was received is performed.

[0039]The [2nd example] If the 2nd example exists in the neighborhood, the communication terminal T2 by which wired connection is carried out, The communication terminal connected to the cable is used without carrying out communication which passed radio from the personal digital assistant T1, When the mode in which communication is performed via a cable is made into the 1st mode and specific communicate mode is chosen from the personal digital assistant by which wireless connection is carried out, it is an example which performs communication directly from the personal digital assistant by which repeals the 1st mode of the above and wireless connection is carried out.

[0040]The above-mentioned specific communicate mode is E-mail transmission, for example, and communicate modes other than specific communicate mode are web communication and facsimile communication, for example.

[0041]In the control in the 1st example, the control in the 2nd example differs only in the control of a personal digital assistant by which wireless connection is carried out.

[0042]Drawing 3 is a flow chart with which the personal digital assistant T1 shows the control action by which wireless connection is carried out in the 2nd example of this invention.

[0043]Only the operation shown in drawing 2 and different operation are shown in drawing 3 among the control actions of the personal digital assistant T1 by which wireless connection is carried out.

[0044]YES [in / in S20 / S8] is shown.

[0045]In S22, if it investigates whether E-mail transmission was chosen and E-mail transmission is chosen, it will progress to S26 (S12), and if E-mail transmission is not chosen, it will progress that they are web communication or facsimile communication to S24 (S10).

[0046]That is, when according to the 1st example the personal digital assistant by which wireless connection is carried out is used by a place where one has gone and the transmission from a personal digital assistant by which wireless connection is carried out is chosen, Since it communicates directly from the personal digital assistant by which wireless connection is carried out if the communication terminal T2 by which wired connection is carried out does not exist in the neighborhood, If it can communicate at the time of going out, the personal digital assistant by which wireless connection is carried out is used on the other hand at a house and the communication terminal T2 by which wired connection is carried out exists in the neighborhood, Since it communicates from the personal digital assistant T1 using the communication terminal T2 by which wired connection is carried out, without performing communication through radio, communication charges can be held down at a low price rather than the case where it communicates via radio.

[0047]According to the 2nd example of the above, the personal digital assistant by which wireless connection is carried out is used at a house, and even when the communication terminal T2 by which wired connection is carried out to the neighborhood exists, it can communicate via the radio from a personal digital assistant, for example to get the return of E-mail transmission directly with a personal digital assistant.

[0048]According to the 2nd example of the above, the personal digital assistant by which wireless connection is carried out is used at a house, Even when the communication terminal T2 by which wired connection is carried out to the neighborhood exists, E-mail transmission is carried out from the personal digital assistant by which wireless connection is carried out, From a personal digital assistant to the web communication by which can communicate via the radio from a personal digital assistant and wireless connection is carried out on the other hand to get the return of E-mail transmission directly with a personal digital assistant. Or with a personal digital assistant, if facsimile communication is performed and the return of these communications is not received, since there is no necessity of receiving, directly, The communication terminal connected to the cable can be used without carrying out communication through the radio from a personal digital assistant, and communication charges can be held down at a low price rather than performing communication through radio.

[0049]It may be made to use communication terminals other than a facsimile machine in each above-mentioned example as the communication terminal T2 by which wired connection is carried out.

[0050]

[Effect of the Invention]According to the invention of claim 1 and two statements, it can

communicate at the time of going out, and if the personal digital assistant by which wireless connection is carried out is used on the other hand at a house and the communication terminal by which wired connection is carried out exists in the neighborhood, the effect that communication charges can be held down at a low price will be done so rather than communicating via radio.

[0051]According to the invention according to claim 3, the personal digital assistant by which wireless connection is carried out is used at a house, and even when the communication terminal by which wired connection is carried out to the neighborhood exists, the effect that communication through the radio from a personal digital assistant can be performed is done so.

[0052]According to the invention of claims 4 and 5 and six statements, the personal digital assistant by which wireless connection is carried out is used at a house, Even when the communication terminal by which wired connection is carried out to the neighborhood exists, E-mail is transmitted from the personal digital assistant by which wireless connection is carried out, From a personal digital assistant to the web communication by which can communicate via the radio from a personal digital assistant and wireless connection is carried out on the other hand to get the return of E-mail transmission directly with a personal digital assistant. Or if facsimile communication is performed and the return of these communications is not received, the effect that communication charges can be held down at a low price rather than the case where it communicates via radio will be done so.

[Translation done.]

* NOTICES *

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original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL FIELD

[Field of the Invention]This invention relates to the communication device system which has a
communication device system, a personal digital assistant by which wireless connection is
carried out especially, and the communication terminal by which wired connection is carried
out.

[Translation done.]

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PRIOR ART

[Description of the Prior Art]When the communication from a personal digital assistant by
which wireless connection is carried out is chosen as a conventional communication device
system which has a personal digital assistant by which wireless connection is carried out, and
the communication terminal by which wired connection is carried out, Communication which
passed radio between the communication terminals by which wired connection is carried out is
performed, and the communication device system which performs communication via a cable
is proposed from this communication terminal by which wired connection is carried out.

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EFFECT OF THE INVENTION

[Effect of the Invention]According to the invention of claim 1 and two statements, it can communicate at the time of going out, and if the personal digital assistant by which wireless connection is carried out is used on the other hand at a house and the communication terminal by which wired connection is carried out exists in the neighborhood, the effect that communication charges can be held down at a low price will be done so rather than communicating via radio.

[0051]According to the invention according to claim 3, the personal digital assistant by which wireless connection is carried out is used at a house, and even when the communication terminal by which wired connection is carried out to the neighborhood exists, the effect that communication through the radio from a personal digital assistant can be performed is done so.

[0052]According to the invention of claims 4 and 5 and six statements, the personal digital assistant by which wireless connection is carried out is used at a house, Even when the communication terminal by which wired connection is carried out to the neighborhood exists, E-mail is transmitted from the personal digital assistant by which wireless connection is carried out, From a personal digital assistant to the web communication by which can communicate via the radio from a personal digital assistant and wireless connection is carried out on the other hand to get the return of E-mail transmission directly with a personal digital assistant. Or if facsimile communication is performed and the return of these communications is not received, the effect that communication charges can be held down at a low price rather than the case where it communicates via radio will be done so.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention]However, in the communication device system of the
above-mentioned conventional example, since the communication from a personal digital
assistant by which wireless connection is carried out certainly performs communication via the
communication terminal by which wired connection is carried out, there is a problem that the
personal digital assistant by which wireless connection is carried out cannot be carried out at
the time of going out, and cannot be used effectively.
[0004]The communication at the time of going out is possible for this invention by the personal
digital assistant by which wireless connection is carried out, It aims at providing the
communication device system which can hold down communication charges at a low price,
when the personal digital assistant by which wireless connection is carried out is used on the
other hand at a house and the communication terminal by which wired connection is carried
out exists in the neighborhood.

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MEANS

[Means for Solving the Problem]When transmission from a personal digital assistant by which
wireless connection is carried out is chosen, this invention, . [whether communication is
directly performed from a personal digital assistant by which wireless connection is carried out
to the neighborhood according to whether a communication terminal by which wired
connection is carried out exists, and] Or it is a communication device system which
determines whether to perform communication via a cable by using a communication terminal
by which wired connection is carried out, without communicating via radio from the above-
mentioned personal digital assistant.

[Translation done.]

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EXAMPLE

[An embodiment of the invention and an example]

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1]It is a block diagram of communication device system CS1 which is the 1st
example of this invention.
[Drawing 2]In the 1st example, the personal digital assistant T1 is a flow chart which shows the
control action by which wireless connection is carried out.
[Drawing 3]In the 2nd example of this invention, the personal digital assistant T1 is a flow chart
which shows the control action by which wireless connection is carried out.
[Drawing 4]In the 1st example, it is a flow chart which shows the control action of the
communication terminal T2 by which wired connection is carried out.
[Drawing 5]In the 1st example, it is a flow chart which shows the control action of the
communication terminal T2 by which wired connection is carried out.
[Description of Notations]
CS1 -- Communication device system
T1 -- Personal digital assistant,
T2 -- Communication terminal by which wired connection is carried out,
18 -- Memory circuit
20 -- Final controlling element,
22 -- CPU,
24 -- ROM,
28 -- Radio Communications Department.

[Translation done.]